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# Foreign Direct Investment and Digital Transformation of Local Companies: Evidence from Vietnam

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**ABSTRACT:** This study examines the relationship between foreign direct investment (FDI) and the digital transformation of local companies in Vietnam, with particular emphasis on the moderating role of absorptive capacity. Using firm-level quantitative data and regression analysis, the findings indicate that greater exposure to foreign-invested enterprises is positively associated with higher levels of digital transformation among domestic firms. However, this effect is conditional on firms' internal capabilities, especially human capital and learning capacity. The results suggest that FDI can act as a catalyst for digital upgrading, but its benefits are not automatic. Policy implications highlight the need to align investment attraction with enterprise capability development to achieve inclusive digital transformation.

**Keywords:** *Foreign direct investment, Digital transformation, Absorptive capacity, Local firms, Vietnam.*

## 1. Introduction

Vietnam's growth model over the past two decades has been closely linked to deepening integration into global production networks and sustained inflows of foreign direct investment (FDI), particularly in export-oriented manufacturing and, increasingly, in service sectors. In parallel, digital

transformation, understood as the strategic adoption of digital technologies to redesign firm processes, products, and business models has emerged as a critical driver of productivity, resilience, and long-term competitiveness. For local companies in Vietnam, digital upgrading is no longer discretionary; rather, it has become a prerequisite for meeting international buyers' standards, integrating into digitally coordinated global value chains, and responding to rapidly evolving consumer behavior in an expanding digital marketplace (World Bank, 2023; UNCTAD, 2024).

According to Prime Minister of Viet Nam, this strategic imperative is reinforced by Vietnam's national policy orientation. The Government's *National Digital Transformation Program to 2025, with orientations toward 2030* sets ambitious targets for the development of digital government, a digital economy, and a digital society, signaling a comprehensive push to accelerate firm-level digitalization across sectors. The program explicitly emphasizes the role of enterprises as central actors in the digital economy, highlighting the need for technology adoption, digital skills development, and innovation capacity among domestic firms.

At the same time, Vietnam continues to attract substantial FDI inflows, creating a potential channel for technology diffusion and capability upgrading. Base on the information of  Ministry of Planning and Investment, official statistics report that FDI disbursement reached approximately USD 25.35 billion in 2024, the highest level on record indicating a strong and sustained presence of foreign-invested enterprises (FIEs) in key industries and economic regions. Macroeconomic indicators further suggest that foreign investment remains a significant contributor to Vietnam's economic momentum into early 2025. Nevertheless, the extent to which these inflows translate into broad-based digital transformation among local firms is far from automatic. The impact of FDI on domestic firms' digital adoption depends on multiple mechanisms such as supplier linkages, demonstration effects, competitive pressure, workforce training and mobility, and collaborative problem-solving which are themselves mediated by firms' absorptive capacity, including digital skills, managerial quality, complementary investments, and organizational readiness (Cohen & Levinthal, 1990; Crespo & Fontoura, 2007).

Globally, the relationship between FDI and digital upgrading has gained increasing scholarly and policy attention as investment in digital-economy-related activities expands rapidly. UNCTAD (2024, 2025) observes that digital sectors have remained relatively dynamic even amid volatility in overall productive investment flows. At the same time, the organization cautions that the gains from digitalization are unevenly distributed, with developing countries facing persistent structural constraints and the risk of widening digital divides in the absence of targeted capability-building and inclusive policies. This global debate is particularly relevant for Vietnam, where FDI may function either as a catalyst for widespread digital transformation or as a force that concentrates advanced digital capabilities within foreign-invested enclaves if spillovers to domestic firms remain limited.

Against this backdrop, this study examines Foreign Direct Investment and Digital Transformation of Local Companies: Evidence from Vietnam. It addresses three guiding questions: (1) to what extent FDI presence or intensity is associated with higher levels of digital transformation among Vietnamese local firms; (2) through which channels FDI influences firms' digital adoption; and (3) which firm-level conditions strengthen or constrain FDI-enabled digital upgrading. By clarifying these relationships, the study contributes to the literature on FDI spillovers and provides policy-relevant insights for aligning investment attraction with domestic digital capability development.

## 2. Literature Review

### *2.1. Conceptualizing digital transformation at the firm level*

Digital transformation (DT) is widely conceptualized as more than the simple adoption of information and communication technologies; it involves strategic and organizational change whereby firms redesign processes, upgrade capabilities, and innovate business models through digital technologies (Vial, 2019). From a firm-level perspective, DT typically includes (i) process digitalization (e.g., ERP, cloud-based workflows, automation), (ii) market-facing digitalization (e.g., e-commerce, digital marketing, omnichannel customer engagement), and (iii) data-driven decision-making (e.g., analytics, AI-enabled forecasting). The literature emphasizes

that DT outcomes depend not only on technology availability but also on complementary investments in skills, management systems, and change leadership (Bharadwaj et al., 2013; Vial, 2019). In developing economies, these complementary conditions are often uneven, producing gaps between digitally advanced firms and those that remain constrained by limited resources and capabilities. This macro pattern aligns with global evidence that digital progress is distributed unevenly, reinforcing a "digital divide" that has become synonymous with a development divide (World Bank, 2024).

### *2.2. Theoretical lenses linking FDI to digital upgrading*

The relationship between FDI and domestic firms upgrading is commonly discussed through spillover theory and absorptive capacity. Spillovers refer to external benefits generated by foreign-invested enterprises (FIEs) that domestic firms may capture without direct ownership transfer, such as improved practices, knowledge diffusion, and technology demonstration (Crespo & Fontoura, 2007). Absorptive capacity defined as a firm's ability to recognize, assimilate, and apply external knowledge conditions whether spillovers translate into measurable upgrading (Cohen & Levinthal, 1990). In DT contexts, absorptive capacity is increasingly tied to digital skills, managerial readiness, and the ability to reorganize workflows around new technologies. Complementary to spillover theory, the Technology–Organization–Environment (TOE) framework explains digital adoption as shaped by technological readiness, organizational resources/leadership, and environmental pressure (e.g., supply-chain requirements, competition, regulation) (Tornatzky & Fleischer, 1990). In FDI–DT research, TOE is useful because FDI can affect all three dimensions: it may improve technological access, reshape organizational practices through benchmarking and training, and strengthen environmental pressures via global value chain (GVC) standards.

### *2.3. Global evidence on investment, digital sectors, and uneven diffusion*

Recent global policy research highlights the growing importance of investment connected to the digital economy. UNCTAD's *World Investment Report 2025* observes that the digital economy is expanding rapidly and that investment patterns

increasingly reflect this shift, although benefits are unevenly distributed and constrained by infrastructure and skills gaps in developing economies (UNCTAD, 2025a, 2025b). At the same time, UNCTAD underscores that international investment in the digital economy can support digital infrastructure and services, but the developmental impact depends on domestic ecosystems and complementary policies (UNCTAD, 2025b). UNCTAD's *Digital Economy Report 2024* further stresses that many developing countries face persistent barriers to accessing digital technologies and that policy design matters for inclusive outcomes (UNCTAD, 2024). These arguments align with the World Bank's synthesis of evidence suggesting that digitalization can support productivity and inclusive growth but does so unevenly and in ways that depend on foundational conditions (connectivity, skills, institutions) (Nayyar et al., 2024; World Bank, 2024).

### *2.4. Mechanisms of FDI spillovers relevant to digital transformation*

The empirical literature identifies several channels through which FDI may influence local firms' DT. First, vertical linkages can stimulate upgrading when domestic suppliers must meet FIE requirements for traceability, quality control, and digitally managed logistics. Second, labor mobility and training may transfer digital know-how (e.g., ERP usage, data reporting routines) from FIEs to domestic firms. Third, demonstration effects occur when domestic firms imitate successful digital practices observed in foreign firms. Finally, competitive pressure can induce digital adoption as local firms respond to productivity and service-quality benchmarks. However, spillover effects can also be negative or ambiguous when foreign entry crowds out domestic firms or widens technological gaps. UNCTAD's recent investment analyses caution that productive, capability-building investment is not guaranteed and that outcomes depend on local absorptive capacity and policy alignment (UNCTAD, 2025a).

### *2.5. Evidence from Vietnam: spillovers, institutions, and capability constraints*

Vietnam is a useful context for examining FDI-enabled upgrading because it combines high FDI exposure with large heterogeneity among domestic firms. OECD analysis notes that Vietnam's increasing integration into world trade has been

strongly driven by FDI inflows and that boosting productivity will depend partly on strengthening technology spillovers from FDI and trade (OECD, 2025). Yet Vietnam-focused studies repeatedly show that spillovers are conditional. For instance, Nguyen, Sun, and Welters (2024), using a panel of manufacturing SMEs in Vietnam, find that FDI presence can hinder SMEs' R&D investment when absorptive capacity is low, but that better local institutions mitigate negative effects and can enable positive spillovers once institutional quality surpasses a threshold (Nguyen et al., 2024). This highlights an important implication for DT: even if FDI raises exposure to digital practices, domestic firms may not adopt effectively without supportive institutions and capability-building conditions.

At more aggregated levels, provincial evidence also suggests a technology transfer pathway from FDI. Chin, Yan, and Nguyen-Thanh (2025) propose a product-variety growth model and, using Vietnam provincial data, report evidence consistent with FDI contributing to local technological levels through technology transfer mechanisms, with policy implications emphasizing support for domestic firms that interact with MNCs as intermediate-goods producers (Chin et al., 2025). While this does not measure DT directly, it supports the broader premise that FDI-related interactions can raise local technology capabilities, an important precondition for firm digitalization.

### *2.6. Digital transformation among Vietnamese local firms and SMEs*

Research focused directly on DT in Vietnam indicates progress but also notable constraints. A survey-based study of 456 SMEs in Hanoi finds that multiple factors shape SMEs' DT, including technological infrastructure, managers' attitudes/capabilities, employee capability, and strategic orientation; the authors also report that SMEs' DT level remains moderate, and many firms lack clear DT strategies (Minh et al., 2024). These findings reinforce a key insight from DT theory: technology adoption is inseparable from managerial readiness and organizational planning. In an FDI-rich economy like Vietnam, this implies that spillovers into DT may concentrate among firms with stronger leadership, skills, and complementary investment while less capable SMEs risk lagging behind.

### *2.7. Synthesis and research gap*

Taken together, the literature suggests a coherent but conditional link between FDI and DT. Global reports emphasize expanding digital-economy investment alongside persistent inequalities (UNCTAD, 2024, 2025b; World Bank, 2024), while Vietnam-specific evidence highlights that spillovers depend on institutions and absorptive capacity (Nguyen et al., 2024; OECD, 2025). However, a gap remains in empirically connecting FDI exposure to measurable firm-level DT outcomes (e.g., adoption of ERP/cloud, digital sales channels, data analytics routines) and clarifying the mechanisms especially for domestic SMEs across sectors and regions in Vietnam. This gap motivates studies that operationalize DT with firm-level indicators and test moderated pathways (e.g., institutional quality, skills, firm size, GVC participation) to identify when FDI accelerates broad-based digital upgrading versus when it produces enclave-style digital advancement.

## 3. Research Methodology

This study adopts a quantitative research design to examine the relationship between FDI and the digital transformation of local companies in Vietnam. A quantitative approach is appropriate because it enables systematic measurement of firm-level digital transformation and allows for statistical testing of hypothesized relationships between FDI exposure and digital adoption outcomes (Creswell & Creswell, 2018).

### *3.1. Research Design and Data Sources*

The analysis is based on firm-level secondary data combined with survey-based indicators of digital transformation. Firm characteristics and ownership information are drawn from enterprise datasets and official statistics, while digital transformation indicators are operationalized using survey responses capturing firms' adoption of digital technologies (e.g., ERP systems, cloud computing, e-commerce platforms, and data analytics). This mixed data structure is consistent with recent empirical studies on digitalization and FDI spillovers in developing economies (Nguyen et al., 2024).

### *3.2. Sample and Variables*

The study focuses on locally owned Vietnamese firms operating in manufacturing and service sectors, excluding wholly foreign-owned enterprises to isolate spillover effects.

- The dependent variable is a Digital Transformation Index (DTI), constructed from multiple items reflecting process digitalization, market digitalization, and data-driven management practices (Vial, 2019).
- The independent variable is FDI exposure, measured by the presence or intensity of foreign-invested enterprises at the industry or provincial level.
- Control variables include firm size, firm age, sector, export status, and human capital.
- Moderating variables, such as absorptive capacity (proxied by workforce skills and R&D or IT investment), are included to capture conditional effects (Cohen & Levinthal, 1990).

### *3.3. Data Analysis*

The empirical strategy employs multivariate regression analysis, with robustness checks using alternative model specifications. Interaction terms are introduced to test moderating effects. Standard diagnostic tests are conducted to address multicollinearity and heteroskedasticity.

### *3.4. Reliability and Ethical Considerations*

Measurement reliability is assessed using internal consistency indicators where survey scales are applied. The study relies on anonymized secondary and survey data, ensuring compliance with ethical standards for research integrity.

## 4. Results and Findings

### *4.1 Descriptive Statistics - Overview of Sample Firms*

The final sample consists of 312 locally owned Vietnamese firms operating in manufacturing (58.3%) and service sectors (41.7%). Firms are distributed across

major economic regions, including the Red River Delta, Southeast, and Mekong River Delta. Small and medium-sized enterprises (SMEs) account for approximately 71% of the sample, reflecting the dominant structure of Vietnam's domestic business sector. The average firm age is 11.6 years, suggesting a relatively mature group of firms with established operational routines. Table 1 presents descriptive statistics for the key variables used in the analysis.

**Table 1:** Descriptive Statistics of Key Variables (N = 312)

| Variable | Mean | SD | Min | Max |
|---|---|---|---|---|
| Digital Transformation Index (DTI) | 3.42 | 0.67 | 1.80 | 4.90 |
| FDI Exposure | 0.36 | 0.18 | 0.05 | 0.82 |
| Firm Size (log employees) | 3.11 | 0.84 | 1.39 | 5.02 |
| Firm Age (years) | 11.60 | 6.45 | 2 | 38 |
| Human Capital (skilled labor %) | 0.41 | 0.19 | 0.08 | 0.87 |

Table 1 presents the descriptive statistics for the key variables used in the analysis, offering an overview of the digital transformation status, FDI exposure, and firm characteristics of the sampled Vietnamese local companies (N = 312). Overall, the descriptive results reveal substantial heterogeneity across firms, highlighting uneven digital readiness and capacity within Vietnam's domestic business sector.

The DTI has a mean value of 3.42 (SD = 0.67) on a five-point scale, indicating a moderate level of digital transformation among local firms. This suggests that while many firms have begun adopting digital tools such as enterprise software, online sales channels, or digital accounting systems comprehensive and strategic digital transformation remains limited. The relatively wide range (Min = 1.80; Max = 4.90) points to significant disparities in digital adoption, consistent with prior evidence that digitalization in developing economies tends to be uneven and concentrated among more capable firms (Vial, 2019; World Bank, 2025). Such variation implies that firm-level factors and external influences, including exposure to FDI, may play a critical role in shaping digital outcomes.

FDI exposure shows a mean of 0.36 (SD = 0.18), with values ranging from 0.05 to 0.82, indicating that firms operate in environments with markedly different levels of foreign-invested enterprise presence. This dispersion reflects Vietnam's spatially and sectorally uneven FDI distribution, where foreign investment tends to cluster in specific provinces and industries. From a spillover perspective, this variation provides an appropriate empirical basis for examining whether proximity to foreign-invested firms translates into differential digital transformation outcomes among local enterprises (Crespo & Fontoura, 2007; UNCTAD, 2025).

Firm size, measured as the logarithm of employees, has a mean of 3.11, suggesting that the sample is dominated by small and medium-sized enterprises (SMEs). The substantial standard deviation (0.84) implies heterogeneity in organizational scale, which is relevant because larger firms typically possess greater financial and managerial resources to undertake digital investments. Prior studies consistently show that firm size is positively associated with digital adoption due to economies of scale, access to skilled labor, and greater strategic capacity (Bharadwaj et al., 2013; OECD, 2024). The predominance of SMEs therefore partly explains the moderate average DTI score observed in the sample.

The average firm age is 11.6 years (SD = 6.45), indicating that most firms have moved beyond the start-up phase and possess established operational routines. While older firms may benefit from accumulated experience, the literature suggests a potentially ambiguous relationship between age and digital transformation. Established routines can either facilitate digital upgrading through accumulated knowledge or hinder transformation due to organizational inertia and resistance to change (Vial, 2019). The wide age range (2–38 years) suggests that age-related effects on digital transformation warrant careful empirical examination.

Finally, human capital, proxied by the proportion of skilled labor, has a mean of 0.41, indicating moderate workforce skill levels across firms. The substantial variation (SD = 0.19) underscores differences in absorptive capacity, a critical determinant of firms' ability to benefit from external knowledge and technology spillovers. According to absorptive capacity theory, firms with higher skill intensity are better

positioned to internalize digital knowledge diffused through FDI linkages (Cohen & Levinthal, 1990; Nguyen et al., 2024).

Taken together, the descriptive statistics suggest that while Vietnam's local firms have made initial progress in digital transformation, substantial gaps remain. These patterns reinforce the argument that FDI-related digital spillovers are likely to be conditional, depending on firm size, skills, and contextual exposure rather than automatic outcomes of foreign investment presence.

### *4.2 Empirical Results*

#### *Hypothesis Testing Results*

To test the hypotheses, multivariate OLS regression models were estimated. Table 2 reports the baseline regression results examining the impact of FDI exposure on digital transformation.

**Table 2:** Regression Results: FDI and Digital Transformation

| **Variables** | **Model 1** |
|---|---|
| FDI Exposure | 0.412* (0.071) |
| Firm Size | 0.183*** (0.045) |
| Firm Age | −0.021 (0.017) |
| Export Status | 0.156** (0.064) |
| Constant | 1.982*** |
| Observations | 312 |
| $R^2$ | 0.38 |

**p < .10, **p < .05, **p < .01*

Table 2 reports the baseline regression results examining the relationship between FDI exposure and the digital transformation of local companies in Vietnam. Overall, the model explains a substantial proportion of the variation in firms' digital transformation outcomes, with an $R^2$ value of 0.38, indicating good explanatory power for firm-level data in emerging economy contexts.

The key variable of interest, FDI exposure, exhibits a positive and statistically significant coefficient ($\beta = 0.412$, $p < .10$), suggesting that greater exposure to foreign-invested enterprises is associated with higher levels of digital transformation among local firms. This finding provides empirical support for Hypothesis 1, which posits that FDI facilitates digital upgrading in domestic companies. From a theoretical perspective, this result is consistent with spillover theory, which argues that multinational enterprises can diffuse advanced technologies, digital management practices, and operational standards to local firms through demonstration effects, supplier linkages, and competitive pressure (Crespo & Fontoura, 2007; UNCTAD, 2025). In Vietnam's context, foreign-invested firms often operate with sophisticated digital systems for logistics, quality control, and reporting, which may encourage or compel local firms in their proximity or supply chains to adopt similar digital tools.

Firm size shows a positive and highly significant relationship with digital transformation ($\beta = 0.183$, $p < .01$). This result aligns with a substantial body of literature indicating that larger firms are more likely to engage in digital transformation due to greater financial resources, access to skilled labor, and managerial capacity to absorb technological change (Bharadwaj et al., 2013; Vial, 2019). In Vietnam, where small and medium-sized enterprises dominate the domestic sector, this finding highlights a structural challenge: smaller firms may face disproportionate barriers to digital adoption, even when operating in FDI-rich environments.

By contrast, firm age is not statistically significant ($\beta = -0.021$, $p > .10$), suggesting that the length of time a firm has been in operation does not independently influence its level of digital transformation once other factors are controlled for. This result supports recent arguments that digital transformation is less about organizational longevity and more about strategic orientation and capability renewal. While older firms may possess accumulated experience, they may also suffer from organizational inertia, offsetting any potential advantages (Vial, 2019).

Export status is positively and significantly associated with digital transformation ($\beta = 0.156$, $p < .05$), indicating that firms engaged in international markets are more digitally advanced. This finding reflects the role of global market participation as a

driver of digital adoption, as exporters must comply with international standards, engage in digital communication with buyers, and integrate into digitally managed global value chains (OECD, 2024). The positive export effect also complements the FDI result, suggesting that external integration through both foreign investment and trade, reinforces incentives for digital upgrading.

Taken together, the results suggest that FDI exposure contributes positively to digital transformation, but its effects are intertwined with firm-level characteristics such as size and international engagement. Importantly, the relatively modest significance level of the FDI coefficient indicates that spillovers are not automatic or uniform, reinforcing recent global policy conclusions that the developmental benefits of FDI depend on domestic absorptive capacity and complementary firm capabilities (UNCTAD, 2024; World Bank, 2025). For Vietnam, these findings imply that policies aimed at leveraging FDI for digital transformation should be complemented by targeted support for SMEs, skills development, and export-oriented upgrading to ensure broader diffusion of digital capabilities.

***Moderating Effects and Robustness Checks***

To examine whether absorptive capacity conditions the FDI–DT relationship, interaction effects were introduced. Table 3 presents the extended model.

**Table 3:** Moderating Role of Absorptive Capacity

| **Variables** | **Model 2** |
|---|---|
| FDI Exposure | 0.298*** (0.076) |
| Absorptive Capacity | 0.365*** (0.069) |
| FDI × Absorptive Capacity | 0.217 (0.091) |
| Control Variables | Included |
| Observations | 312 |
| $R^2$ | 0.44 |

**p < .10, **p < .05, **p < .01*

Table 3 reports the extended regression model examining whether absorptive capacity moderates the relationship between FDI exposure and the digital

transformation of local firms in Vietnam. Compared with the baseline model, the inclusion of absorptive capacity and the interaction term improves the model's explanatory power, with the $R^2$ increasing from 0.38 to 0.44, indicating that firm-level learning capabilities substantially enhance the explanation of digital transformation outcomes.

The coefficient for FDI exposure remains positive and highly significant ($\beta = 0.298$, $p < .01$), confirming that proximity to foreign-invested enterprises continues to exert a direct positive influence on firms' digital transformation. However, the magnitude of this coefficient is reduced relative to the baseline model, suggesting that part of the FDI effect operates through firms' internal capabilities rather than through direct exposure alone. This finding reinforces the view that FDI is a necessary but insufficient condition for digital upgrading and must be complemented by firm-level readiness (UNCTAD, 2025).

Absorptive capacity itself has a strong and statistically significant positive effect on digital transformation ($\beta = 0.365$, $p < .01$). This result aligns closely with absorptive capacity theory, which posits that firms with higher levels of skills, knowledge, and learning capability are better able to recognize, assimilate, and exploit external knowledge (Cohen & Levinthal, 1990). In the context of digital transformation, absorptive capacity reflects firms' ability to integrate digital tools into workflows, adapt organizational routines, and leverage data for decision-making. The finding is consistent with recent empirical work in Vietnam showing that firms with stronger human capital and institutional support are more likely to benefit from foreign-related knowledge spillovers (Nguyen et al., 2024).

The interaction term between FDI exposure and absorptive capacity is positive and statistically significant ($\beta = 0.217$, $p < .05$), providing clear evidence of a moderating effect. This result indicates that the positive impact of FDI on digital transformation is significantly stronger for firms with higher absorptive capacity. In practical terms, local firms with skilled workforces, IT investment, and managerial readiness are better positioned to internalize digital practices demonstrated or required by foreign-invested enterprises. Conversely, firms with low absorptive capacity may remain

unable to capitalize on FDI-related digital spillovers, even when operating in FDI-intensive environments.

This finding contributes to the broader FDI spillover literature by empirically confirming that spillovers are conditional rather than automatic (Crespo & Fontoura, 2007). It also aligns with global policy analyses emphasizing that digital-economy investment generates inclusive development outcomes only when supported by domestic capability-building policies (UNCTAD, 2024; World Bank, 2025). For Vietnam, where SMEs dominate the domestic economy, the results suggest that without parallel investments in skills development, digital infrastructure, and managerial training, FDI-driven digital transformation may remain limited to a subset of capable firms.

Overall, the results presented in Table 3 underscore a central conclusion of this study: FDI can act as a catalyst for digital transformation, but its effectiveness is amplified by absorptive capacity. This has important policy implications. Investment attraction strategies should be complemented by enterprise support programs focused on workforce upskilling, digital literacy, and organizational change management. Such an integrated approach would increase the likelihood that FDI contributes to broad-based digital upgrading rather than enclave-style technological advancement concentrated among a small group of firms.

## 5. Conclusion

This study set out to examine the relationship between FDI and the digital transformation of local companies in Vietnam, with particular attention to the conditional role of firm-level absorptive capacity. Drawing on firm-level quantitative evidence, the findings provide a coherent and nuanced picture of how FDI contributes to digital upgrading in an emerging economy context.

The results show that FDI exposure is positively associated with the digital transformation of domestic firms, indicating that the presence of foreign-invested enterprises can facilitate the diffusion of digital technologies, management practices, and operational standards. However, this relationship is not automatic or uniform. While firms operating in FDI-intensive environments tend to exhibit higher levels of

digital transformation, the magnitude of this effect varies significantly depending on firm characteristics. In particular, firm size and export participation emerge as important correlates of digital adoption, suggesting that resource availability and integration into international markets reinforce incentives and capacity for digital upgrading.

Most importantly, the analysis demonstrates that absorptive capacity plays a critical moderating role in the FDI–digital transformation nexus. Firms with higher levels of skilled labor, IT-related investment, and organizational readiness are substantially better positioned to benefit from FDI-related digital spillovers. This finding reinforces core theoretical insights from absorptive capacity and spillover theory, which emphasize that external knowledge and technology transfer translate into productivity-enhancing outcomes only when firms possess the internal capabilities to recognize, assimilate, and apply them. In the Vietnamese context—where small and medium-sized enterprises dominate the domestic sector—this result highlights the risk that digital benefits from FDI may remain concentrated among a limited subset of capable firms if complementary capabilities are not strengthened more broadly.

The study makes several contributions. Empirically, it extends the FDI spillover literature by linking FDI exposure to measurable firm-level digital transformation outcomes, rather than more traditional indicators such as productivity or R&D alone. Conceptually, it integrates digital transformation research with international investment theory by demonstrating how firm-level learning capacity conditions digital spillovers. From a policy perspective, the findings suggest that strategies focused solely on attracting FDI are insufficient to ensure broad-based digital upgrading. Instead, investment promotion should be aligned with targeted enterprise support policies, including workforce upskilling, digital literacy programs, and incentives for organizational and technological modernization among local firms.

Despite these contributions, the study has limitations. The cross-sectional nature of the data constrains causal inference, and future research could employ panel data or quasi-experimental designs to better identify dynamic effects. In addition, further work could disaggregate digital transformation into more granular dimensions and explore sector-specific pathways. Nonetheless, the findings offer timely insights for

Vietnam and other emerging economies seeking to leverage FDI as a catalyst for inclusive digital transformation.

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